AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1.   (Currently Amended)   A method for enhanced uplink data transmission, comprising:

independently generating a transport channel for each of a plurality of transmission modes, each transport channel having an associated transmission time interval (TTI), the plurality of transmission modes including a scheduled transmission mode and an autonomous transmission mode;

multiplexing the generated transport channels to form a composite transport channel, the formed composite channel having one TTI, the TTI of the formed composite transport channel being equal to the minimum TTI of the TTIs associated with the independently generated transport channels,; and

mapping the composite transport channel onto a physical channel.

2.   (Canceled)

3.   (Currently Amended)   The method of claim 1, wherein the independently generating step generates first and second transport channels having first and second TTIs, respectively, and the second TTI is a multiple of the first TTI.

4.   (Canceled)

5.   (Currently Amended)   The method of claim [[4]]3, wherein the first TTI is 2ms and the second TTI is 10ms.

6.   (Original)   The method of claim 1, wherein the generating step independently generates transport channels for more than one transmission mode.

7.   (Original)   The method of claim 6, wherein the TTI of each transmission mode is one of a sub-multiple and multiple of 10 ms.

8.   (Canceled)

9.   (Original) The method of claim 6, wherein the first TTI is 2ms and the second TTI is 10ms.

10.   (Previously Presented) The method of claim 1, wherein the mapping step maps the composite transport channel onto the physical channel based on the TTI of the formed composite channel.

11.   (Currently Amended) An apparatus for enhanced uplink data transmission, comprising:

at least two control units each independently generating a transport channel for a different transmission mode, the at least two control units including at least a first control unit generating a first transport channel for a scheduled transmission mode, and a second control unit generating a second transport channel for an autonomous transmission mode,and each transport channel having an associated transmission time interval (TTI);

a transport channel multiplexer multiplexing the generated transport channels to form a composite transport channel, the formed composite channel having one TTI, the TTI of the formed composite transport channel being equal to the minimum TTI of the TTIs associated with the independently generated transport channels,; and

a mapping unit mapping the composite transport channel onto a physical channel.

12.   (Currently Amended) A method of wireless uplink communication comprising:

mapping at least two transport channels within a physical channel, the at least two transport channels including a first transport channel for a scheduled transmission mode, and a second transport channel for an autonomous transmission mode, each transport channel having an associated transmission time interval (TTI); multiplexing the at least two transport channels to form a composite transport channel, the formed composite channel having one TTI, the TTI of the formed

composite transport channel being equal to the minimum TTI of the TTIs associated with the at least two transport channels.

13.   (Currently Amended)   The method of Claim 12, wherein each of the transport channels has a distinct ~~transmission time interval ("TTI")~~ associated thereto.

14.   (Previously Presented)   The method of Claim 12, wherein the at least two transport channels are generated for each transmission mode.

15.   (Canceled)

16.   (Canceled)

17.   (Canceled)

18.   (Currently Amended)   The method of claim 14, wherein the <u>first and second</u> transport channels are generated ~~by generating at least a first and a second transport channel~~ having first and second TTIs,<u> respectively,</u> and the second TTI is a multiple of the first TTI.

19.   (Canceled)

20.   (Previously Presented)   The method of claim 12, wherein the step of mapping maps the composite transport channel onto the physical channel based on the TTI of the formed composite channel.

REMARKS

Claims 1, 3, 5-7, 9-14, 18 and 20 are pending in this application. Claims 1, 11 and 12 are independent claims. Claims 1, 3, 5, 11, 13 and 18 are amended. Claims 4, 8 and 19 are canceled. Reconsideration and allowance of the present application are respectfully requested.

Claim Rejections

Rejections under 35 U.S.C. §102 - *Vayanos*

Claims 1, 3-14 and 18-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2002/0122400 ("Vayanos et al."). This rejection is respectfully traversed.

The Applicants respectfully submit that Vayanos fails to teach each of the elements in claim 1. Claim 1 has been amended to incorporate the limitations of dependent claim 4 and now recites "independently generating a transport channel for each of a plurality of transmission modes, each transport channel having an associated transmission time interval (TTI), the plurality of transmission modes including a scheduled transmission mode and an autonomous transmission mode". Vayanos does not teach this limitation.

With respect to claim 4, on page 3 of the July 21, 2008 Office Action, the Examiner asserts paragraphs [0030] and [0031] of Vayanos teach that a first transmission mode associated with a first transport channel is a scheduled transmission mode and a transmission mode associated with a second transport channel is an autonomous transmission mode. Paragraphs [0030] and [0031] of Vayanos state the following:

> [0030] In one embodiment, the multiplexer module 48 operates within the media-access control (MAC) layer and gets the data stream priorities from a higher network layer. The MAC layer defines the procedures used to receive and transmit over the physical layer.

> [0031] As would be apparent to one of ordinary skill in the art, the data streams 40-46 can be prioritized with any priority scheme known in the art, such as first-in-first-out (FIFO), last-in-first-out (LIFO), and shortest-

job-first (SJF). A priority scheme can also be based on the type of data. As would be apparent to one of ordinary skill in the art, the multiplexer module 48 can operate on a plurality of network levels.

Paragraphs [0030]-[0031] of Vayanos make no mention of autonomous of scheduled transmission modes. Paragraphs [0030]-[0031] of Vayanos make no mention of any types of transmission modes. Specifically, neither paragraphs [0030]-[0031], nor any other part of Vayanos teaches "independently generating a transport channel for each of a plurality of transmission modes" the plurality of transmission modes "including a scheduled transmission mode and an autonomous transmission mode" as claim 1 requires. Zeira likewise fails to teach this limitation.

Accordingly, at least for the reasons stated above, neither Vayanos nor Zeira, alone or in combination, teach each of the limitations of claim 1 as is required to support a rejection under §103.

Additionally, claims 11 and 12 have been amended and contain limitations similar to those in claim 1. Accordingly, at least in view of their similarity to claim 1, neither Vayanos nor Zeira, alone or in combination, teach each of the limitations in either of claims 11 and 12 as is required to support a rejection under §103.

Furthermore, claims 3, 5-7 and 9-10 depend from claim 1; and claims 13, 14, 18 and 20 depend from claim 12. Accordingly, at least in view of their dependency from claims 1 and 12, neither Vayanos nor Zeira, alone or in combination, teach each of the limitations in any of claims 3, 5-7, 9-10, 13, 14, 18, and 20 as is required to support a rejection under §102.

Therefore, Applicants respectfully request that this rejection of claims 3, 5-7, 9-13, 14, 18, and 20 under 35 U.S.C. §103 be withdrawn.